



# **EU Support to Innovation Procurement**

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HORIZON 2020



# ***Support of Innovation Procurement in the H2020 context***

# Forms of support



- ❖ Coordination and Support Actions (**100%** funding rate):
  - Support only coordination activities e.g. preparation of a PCP or PPI by a group of procurers (investigating feasibility to start PCP/PPI, open market consultation with industry before initiating a concrete PCP or PPI etc)
  - CSAs do not provide EU co-financing for an actual PCP or PPI procurement
- ❖ PCP Actions (maximum **90%** funding rate):
  - Provide EU co-financing for an actual PCP procurement (one joint PCP procurement per PCP action) + for related coordination and networking activities (e.g. to prepare, manage and follow-up the PCP procurement)
- ❖ PPI Actions (**35%** funding rate):
  - Provide EU co-financing for the actual PPI procurement(s) (one joint procurement **or several separate but coordinated PPI procurements** per PPI action) + for related coordination and networking activities (e.g. to prepare, manage and follow-up the PPI procurement(s))



# Ongoing and completed PCP procurements



- 12 PCPs have completed (phase 3 finished)

- [SILVER](#) (Robotics for elderly care)
- [THALEA](#) (Telemedicine for intensive care unit patients at increased risk)
- [SMART@FIRE](#) (Smart protective equipment for fire fighters)
- [Human Brain Project](#) (High Performance Computing for brain simulation)
- [DECIPHER](#) (Mobile health services)
- [V-CON](#) (Virtual construction of road infrastructure)
- [CHARM](#) (Traffic management)
- [PRACE 3IP](#) (Energy efficient supercomputing)
- [PREFORMA](#) (Long term digital preservation)
- [IMAILE](#) (Personalised e-learning solutions)
- [NYMPHA-MD](#) (Mental care for bipolar disorders)
- [HNSciCloud](#) (Science cloud platform for research community)

*finished*  
**PCP**

- 11 PCPs are ongoing (are procuring)

- [QUACO](#) (Quadrupole magnets for large hadron collider)
- [MAGIC](#) (Post stroke recovery)

*ongoing*  
**PCP**

HBP PCP doesn't result from a PCP call. HBP decided itself to implement a PCP in the HBP research project.  
[Cloud for Europe](#) (Cloud computing for govts) was only partially implemented (up to mid phase 2)



- [SELECT4Cities](#) (Internet of Everything platform for Cities)
- [RELIEF](#) (Pain self-management)
- [EMPATTICS](#) (Chronic disease self-management)
- [NIGHTINGALE](#) (Wearable sensors for safer patient monitoring/care)
- [PROEMPOWER](#) (Diabetes patient empowerment)
- [LIVE INCITE](#) (Lifestyle interventions in perioperative medicine)
- [MARINE-EO](#) (Marine earth observation)
- [FABULOS](#) (Automated bus lanes)
- [SMART.MET](#) (Smart water metering)

*PCP  
ongoing*

- 7 buyers groups are in open market consultation (preparing the PCP) or in the tendering phase of the PCP

- [ANTISUPERBUGS](#) (Robotics for elderly care)
- [STARS](#) (Health stress reduction)
- [POSIDON](#) (Polluted site decontamination)
- [BROADWAY](#) (Interoperable mobile broadband for public safety)
- [SHUTTLE](#) (Toolkit for trace analysis by forensic laboratories)
- [CIVILnEXT](#) (Next gen information systems for EU external policies)
- [ARCHIVER](#) (Archiving and preservation for research environments)

*PCP in  
Preparation*

# Achieved market engagement



- **Open Market Consultations**

- Involving between 70 to 300 companies and researchers per PCP
- Broaching the views of companies and researchers from all over Europe and beyond in preparation of the upcoming PCP procurement

- **Call for Tenders**

- Tender docs downloaded typically between 50 to 300 times
- Nr of offers received typically between 10-60 (4-7 for specialised/low budget PCPs)
- Offers received from all over Europe and beyond

- **Contract award**

- 110 procurers cooperating/buying jointly in the 31 buyers groups
- 151 contracts awarded in total
- Winning bidders involving 312 companies and 56 universities/research centra
- Total value of the PCP procurements: between € 450.000 and € 9.000.000
  - Contract values for phase 1: between € 15.000 and € 180.000 (per contractor)
  - Contract values for phase 2: between € 20.000 and € 900.000 (per contractor)
  - Contract values for phase 3: between € 65.000 and € 2.700.000 (per contractor)





# Immediate impacts of EU funded PCPs (ongoing + completed PCPs)



- **Opening a route-to-market for new players/SMEs**
  - 61,5% of the total value of all PCP contracts goes directly to SMEs
  - Compared to 29% average in public procurements across Europe

Mostly small young SMEs: 31% below 10 people, 48% below 50 people, 60% less than 10 years old
- **Helping also larger market players bring products to the market**
  - 16% of PCP contracts won by large companies as single bidder
  - 19% of PCP contracts won by consortia of larger companies plus SMEs
  - 73,5% of the PCP contracts won by SMEs (SMEs alone, or as lead bidder)
- **Relevance to universities & bringing scientific results to market**
  - 30% of winning contracts have also a university/R&D center partner in consortium
  - Winning SMEs are also often university start-ups
- **Stimulating cross-border company growth**
  - 33,1% of contracts are won by bidders that are not from a country of any of the procurers in the buyers group (e.g. DE company working for UK+NL procurers)
  - Compared to 1,7% average in public procurements across Europe
- **Creating growth and jobs in Europe**
  - 99,5% of contractors do 100% of R&D activities for the PCP in Europe  
(2 have committed to do minimum 68% resp. 85% of R&D in Europe)

# Impacts completed FP7 PCPs



- Deployment of solutions by procurers in the project
  - Procurers from 55% of completed FP7 PCPs have already deployed solutions developed during the PCP (SILVER, PRACE3IP, HBP, PREFORMA, THALEA, IMAILE)
    - Open source solutions deployed without needing procurement: PREFORMA, HBP (part open source)
    - Some procured solutions as part of the PCP: PRACE3IP, THALEA, IMAILE
    - Some procured / are procuring solutions after the PCP: SILVER, HBP
  - Procurers from 36% of completed FP7 PCPs have *not procured yet*
    - Delay in other deployments that need to be finished first before buying the PCP solutions: CHARM
    - Slow standardisation is delaying deployment: V-CON
    - Product commercialisation/certification/clinical trials not finished yet: SMART@FIRE, NYMPHA-MD
  - Procurers from 9% of the completed FP7 PCPs do not plan to procure solutions
    - Market situation / solution requirements changed: DECIPHER
- Wider deployment of solutions by other procurers on the market
  - Procurers from 27% of completed FP7 PCPs are already preparing additional larger scale procurements with enlarged buyer groups (THALEA, PRACE3IP, IMAILE)
- Commercialisation of solutions
  - 86% of Ph3 contractors commercialised (part of) the solutions
  - 11% of contractors (across Ph1/2/3) expect to commercialise solutions in 2 years
  - 17% of contractors do not plan commercialisation of solutions





# Lessons learnt



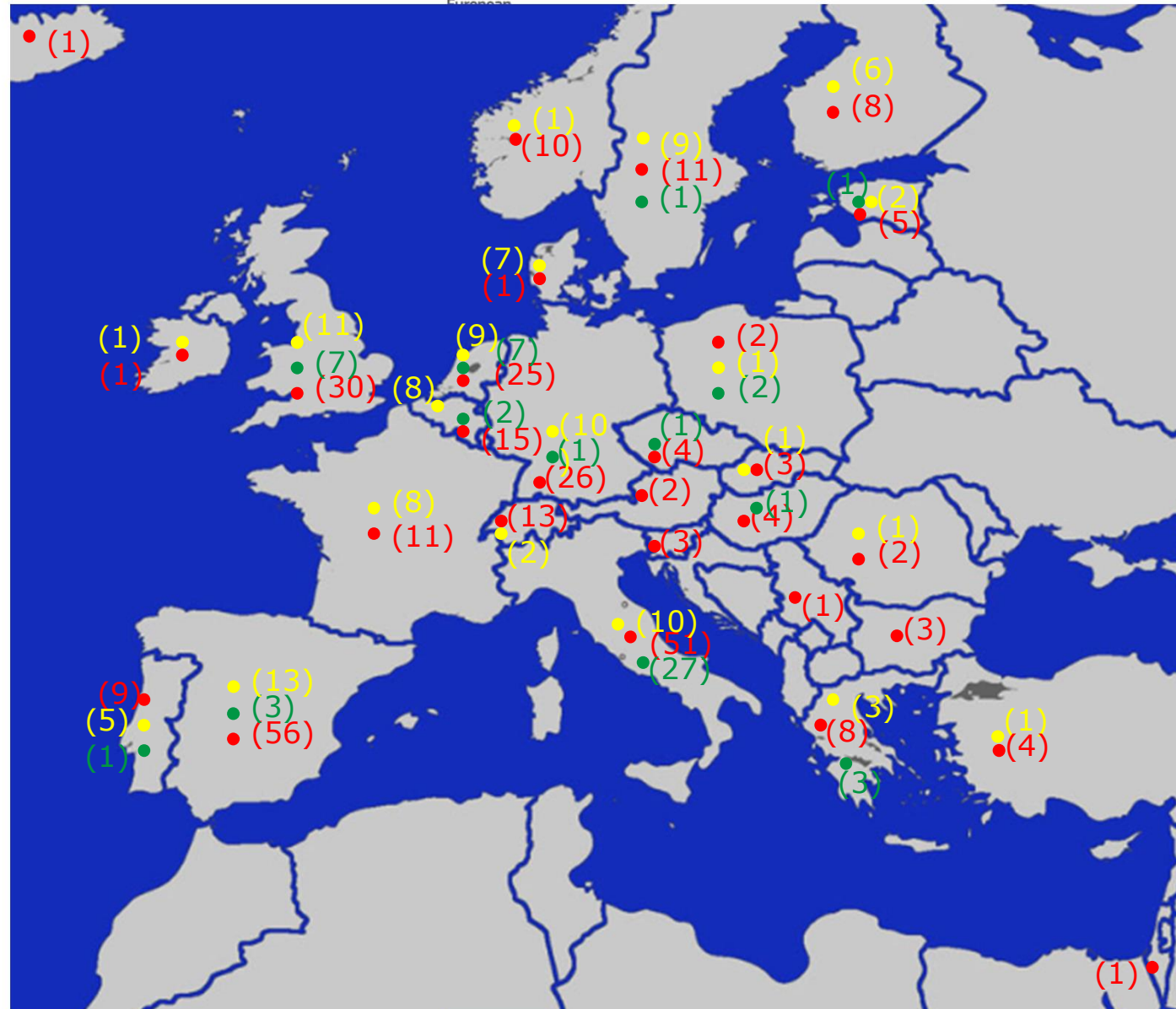
- Separating PCP (R&D) from PPI (commercial deployment) and using a phased PCP approach
  - Opens the market for small players/SMEs (smaller gradually growing contract sizes)
  - Enables procurers to steer industry R&D to meet their needs, achieve desired quality and efficiency improvements in public services and reduce vendor lock-in
  - Stimulates cooperation with universities and larger companies
  - Enables use of place of performance clauses that create growth/jobs in Europe
- Joint cross-border PCP procurement
  - Stimulates cross-border company growth
  - Facilitates the creation of more open standards based interoperable solutions
- Leaving IPR ownership rights with contractors
  - Reduces the cost / the R&D risk for procurers with 50%
  - Encourages wider commercialisation of solutions by vendors
- Using a place of performance condition in PCPs
  - Can effectively stimulate growth and job creation in Europe



# Geographic location winning bidders & procurers (completed+ongoing PEPs)



- Companies  
in winning bids  
(nr/country)
- Universities/  
research centres  
in winning bids  
(nr/country)
- Procurers  
(nr/country)



# GREEK PROCURERS BENEFITED FROM H2020/FP7 SUPPORT



# Telemedicine for ICU-patients at increased risk THALEA: benefits for procurers

## Thalea<sup>)))</sup>

*PCP: procured the R&D, testing and deployment (for 4 years) of pre-series systems*

June 2015 -> Nov 2016  
5 suppliers (ph 1) -> 3 suppliers (ph 3)



*Certification of solutions  
Scaling up development  
SMEs grow their business  
Enlarged buyers group*

## Thalea<sup>)))</sup> II

*PPI: larger scale wider deployment of final certified systems*

Call for tenders  
Expected by Mid 2019

Procurers PCP: Univ Clinic Aachen (DE), Univ Hospital Maastricht (NL), Hospital East Limburg (BE), Parc Tauli Sabadell University Hospital (ES), Northern Ostrobothnia Hospital District (FI)

Enlarged buyers group for the PPI: includes also Austrian procurers.

Benefits for procurers:

- ❑ Interoperable (lower cost) platform for tele-detection and tele-care of ICU-patients at increased risk.
- ❑ Significantly improved risk-detection, earlier diagnosis and higher efficiency in the ICU, enabling a reduction in sepsis mortality by 25% and in length of hospital stay by 20-50%.
- ❑ Faster time to market: From research to deployed working systems in 1,5 year time. The three pre-series systems delivered at the end of the PCP by Dendrite Clinical Systems, New Compliance and Philips all met the procurers' requirements. They are deployed and in use in the hospitals since 2016.



# Telemedicine for ICU-patients at increased risk THALEA: benefits for companies



Benefits for companies:

- PCP enabled companies to grow their business cross-border and bring disruptive innovations to the market: Telemedicine center with big data analysis, self-learning and prediction capabilities.

**Nov 2016 (end of PCP)**



*Company setup office in the US (12/2016)  
Distributor agreements (2017)  
Integration with hospital platforms of  
big corporates (e.g. GE, Johnson, Philips..)  
ERDF funded safety demonstration (2018)  
Certified as medical device (2018)  
Finalising VC investment round (2019)*

**Today**

***OR Cockpit Solution  
already installed in 25  
Dutch and 2 US hospitals.  
Distributing also in BE.***



**SME, UK**



**SME, IE**

*Setup new company ICView specifically for  
commercialising the solution in Europe,  
Middle East, Russia (2017)  
Certified as medical device (2018)*

***ICView Solution is  
running as a pilot system  
in several hospitals.***



*Further solution enhancements in  
cooperation with DE hospitals (2017-19)  
Certified as medical device (2018)*

***eICU Solution has been  
deployed in several  
hospitals***



# Long term digital preservation PREFORMA: benefits



# for procurers



*PCP: procured the R&D and tested the solutions in 8 countries*

June 2014 -> Dec 2017  
6 suppliers (ph 1) -> 3 suppliers (ph 3)



Publication and continued extension and updating of the open source code

*INDIVIDUAL DOWNLOADS of the open source solutions by memory institutions from around the world (incl. from PREFORMA countries)*

Beginning 2018 - Present

Procurers: National Archives - Riksarkivet (SE), Sound and Image - Beeld en Geluid (NL), Royal Institute for the art patrimonium - KIK (BE), Greek Film Center (EL), Local Government Management Agency - LGMA (IE), Foundation Prussian Cultural Heritage (DE), Town Hall Girona (ES), Ministry of Culture - EVKM (EE), National Library - Kungliga (SE)

Benefits for procurers and citizens:

- ❑ Goal achieved to market open source products that enable **reliable assessment and correction of the increasing amount of electronic collections** to be archived
- ❑ **3 Conformance checkers for the 3 most common file formats** (PDF, TIFF, AV) successfully marketed by: MediaArea.net (FR) and Open Preservation Foundation (UK)
- ❑ The new solutions are **saving time and money, reducing the error rate and improving the quality** of digital preservation



# Scaling up procurement innovations



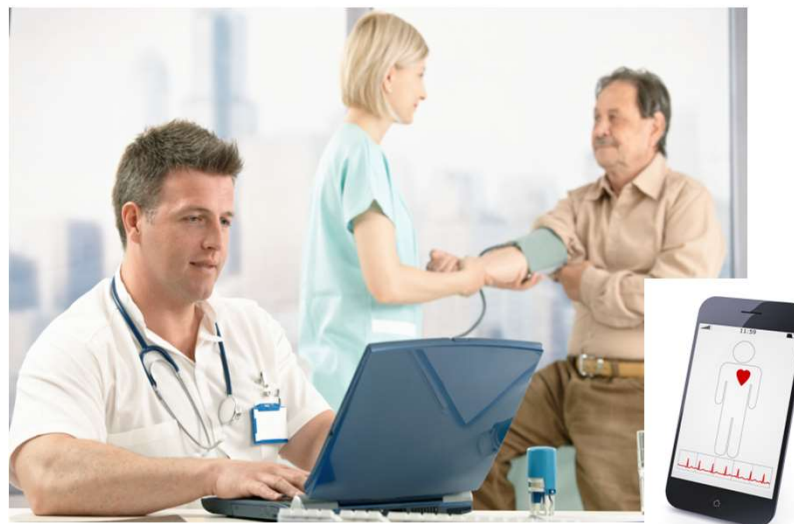
**DECIPHER** PCP 

*EU funded PCP*

+

**CEF TELECOM**

**gnomon**  
INFORMATICS



- Health record's access, multi-language information sharing with professionals & relatives, treatment planning & monitoring, emergency support and geolocation, patienty consent and privacy
- Commercialising across EU (CEF: EL, MT, CY, LU, BE)
- Helped also win other PCPs to enrich with new innovations (e.g. AI)





# Example transnational PPI – DG CONNECT

## Elderly Care



**STOPANDGO**  
**2016-2018**  
**Value PPI procurement: € 17,2M**  
**[stopandgoproject.eu](http://stopandgoproject.eu)**

**STOP AND GO procurers:** Health agency province ASP Catanzaro (IT), ASL Roma D (IT), SO.RE.SA (IT), Eastern Cheshire Clinical Commissioning Group (UK), City of Liverpool (UK), Santa Creu I San Pau hospital (ES), City of Helmond (NL)

The STOP AND GO procurers completed across 4 different countries in total €17,2M of public procurements of innovative solutions that delivered ICT based telecare services for frail elderly that suffer from multiple conditions at the same time such as heart failure, diabetes, etc.

### Examples of results:

- ❑ Santa Creu: Remotely monitored implantable cardiac defibrillators: 9,8% reduction in hospital visits, 29% decrease in risk of death, implants were successful in 98,12% of cases (90% under old approach). Wider deployment of this approach currently implemented in Catalonia and in ongoing RITMOCORE PPI.
- ❑ Liverpool: ICT based home care service delivers better care for less cost (payment by results), increased service flexibility, monitoring and enables data-enabled urgent care interventions





# ***Support of Innovation Procurement in the ESIF context***



## ***Cohesion policy may support measures in the Operational Programs (OPs) to...***

### **➤ Foster innovation through public procurement**

- ❑ TO 1 (IP1B) Strengthening research, technological development and innovation

### **➤ Foster better meeting of public needs**

TO 1 (IP1A) enhancing research and innovation (R&I) infrastructure

TO 2 (IP2C) strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health

TO 4 (all IPs) supporting the shift toward a low-carbon economy in all sectors

TO 5 (all IPs) promoting climate change adaption, risk prevention and management

TO 6 (all IPs) preserving and protecting the environment and promoting resource efficiency

TO 7 (all IPs) promoting sustainable transport and removing bottlenecks in key network infrastructures

### **➤ Foster more innovative public procurement procedures and administrative capacities**

TO 11 (IP11) Enhancing institutional capacity and an efficient public administration

TO 2 (IP2C) strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health



## **20 MILLION PROGRAMME (TO 1)**

- ❑ - 2 Million euro devoted to general awareness raising, knowledge sharing, workshops, consultations etc
- ❑ -The remaining 18 Million euro provides co-financing for Estonian public procurers to carry out an innovation procurement.
  - ❑ The 18 Million euro support co-finances the actual procurement need and supporting activities for the procurers to prepare and manage the procurement
  - ❑ Procurers can apply for up to **50%** of co-financing from the total cost of the project.
  - ❑ The funding is divided via a ratio of 75%-25% between the actual solution to be procured and supporting activities. At least 75% of the eligible financing has to be invested into the actual solution, max 25% can be invested into supporting activities.

## **30 MILLION PROGRAMME (TO1)**

Name of the mechanism: **“Pre-commercial Procurement LT”** (“Ikiprekybiniai pirkimai LT”)

Type of action: Direct supply side. Funding is providing for suppliers via procuring organizations. **Only PCPs**

Funding rate: **85%**

**"15 PCP under the value of 1 mln. EUR and 2 PCP above 1 mln. value approved and started at the beginning of 2018"**



European  
Commission

## Teach SMEs how to tender

### Summary

SME participation in public procurement has improved over time but still not reached desired levels.<sup>1</sup> Small firms are discouraged from tendering for public contracts because of barriers such as lack of awareness of contract opportunities and complex processes.<sup>2</sup>

A number of measures have been identified at EU level to tackle the barriers SMEs face on the one hand, and, on the other – to support SMEs directly by promoting knowledge about calls, improving dialogue with procurers and developing tendering skills by means of dedicated training programmes.

Indeed, free training and advisory services, e.g. on changes introduced by new legislation, e-procurement systems, proposal development, etc. for SMEs are crucial to increase their participation in public tenders. General and targeted public procurement training courses for SMEs bring about a range of positive outcomes:

- SMEs are better prepared to participate in public procurement;
- A higher number of SMEs take part in public procurement, which fosters the local economy; and at the same time;
- Procurers are better aware of the specificities of SMEs.

### Key success factors and potential pitfalls

#### Make training accessible

Offering training for free, at multiple locations and with the support of SME representatives as trainers would greatly enhance its impact and boost attendance rates.

#### Offer applied advice and insight from practitioners

It is important to focus on practical skills tailored to SME needs for being successful at tendering. The role of experienced bid specialists is key in this regard.

### Related Good Practices

Credentials for procurement professionals

### Good Practice Examples

- ✓ Ireland
- ✓ Italy



### Impact

#### Increase competition



Greater involvement of SMEs in public procurement results in increased competition for public contracts.

### Input

#### Cost – €€

- Low set-up cost
- Medium operations cost



#### Time – 6 to 12 months



#### Complexity – Low

Active participation of SMEs, need for specific expertise and staff





# **Innovation Procurement in the next Programming Period**

- Innovation Procurement in Horizon Europe
- Innovation Procurement in DEP
- Innovation Procurement in the Defense Program





# Thank you for your attention Questions ?



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